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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/364,794	07/30/1999	J. ERIC BERGE	7480-PA1CP2	9884

27111 7590 07/30/2002

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EXAMINER

SHAPIRO, JEFFERY A

ART UNIT	PAPER NUMBER
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3653

DATE MAILED: 07/30/2002

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 24

Application Number: 09/364,794
Filing Date: July 30, 1999
Appellant(s): BERGE ET AL.

MAILED

JUL 30 2002

GROUP 3600

James W. McClain
For Appellant

EXAMINER'S ANSWER

Art Unit: 3653

This is in response to the appeal brief filed 4/30/02.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

Originally, Claims 1-163 were presented. In response, a rejection based on multiplicity and prolix was placed on the claims with the requirement that they be reduced to a reasonable size. (See paper 4, dated 4/20/00). Applicant acceded to this requirement in the next response. (See paper 5, dated 7/24/00.) As further evidence of Applicant's assent to the multiplicity/prolix rejection, it is further noted that Applicant, in addition to reducing the number of claims to be examined, also canceled two copending applications (09/128,050 and 09/207,075) which were similarly rejected based upon multiplicity/prolix since they had the same or substantially the same claims as the instant application. (See Paper 5, p. 6, last paragraph.) Claims 1, 11, 39, 59, 65,

Art Unit: 3653

72, 97, 102, 105, 126, 128, 138, 145, 151 and 164 were submitted and accepted for examination.

This appeal involves claims 1, 11, 39, 59, 65, 72, 97, 102, 105, 126, 128, 138, 145, 151 and 164.

Claims 2-10, 12-38, 40-58, 60-64, 66-71, 73-96, 98-104, 106-125, 127, 129-137, 139-144, 146-150 and 152-163 have been withdrawn from consideration as being outside the claim limits as specified in the multiplicity/prolix rejection.

(4) Status of Amendments After Final

The amendment after final rejection filed on 12/25/01 has not been entered.

(5) Summary of Invention

The summary of invention contained in the brief is deficient because, in the Examiner's opinion, there are prior art systems which are the same or substantially the same as Applicant's which discloses using vacuum as a motivating means for moving ice or functionally equivalent items through a system. In addition, it appears that Applicant's apparatus is not "entirely under negative air pressure throughout its entire extent" since the pump or vacuum creation device, at the very least, necessarily creates a negative air pressure from a positive air pressure. In addition, positive air pressure and negative air pressure are submitted to be functional equivalents of each other since air pressure operates under the principle that higher pressure air moves to areas of low pressure. Therefore, calling a system "positive air pressure" versus "negative air pressure" is relative to the point in the system being looked at. In fact, it is submitted

Art Unit: 3653

that both positive and negative air pressure is necessarily present in all air moving systems in order for such systems to operate.

(6) Issues

The appellant's statement of the issues in the brief is substantially correct. The changes are as follows.

1. Anticipation under 35.U.S.C. Sec. 102 (b) over Benny et al:

The Examiner submits that the disclosure of Benny

- a.) discloses an all-vacuum-motivation conveyance system;
- b.) is applicable to conveyance of ice for human consumption;
- c.) represents what those skilled in the art would consider analogous art;
- d.) is of a system with a structure of apparatus the same or substantially the same as Applicant's described in Applicant's claims;
- e.) is of a system whose method of operation is the same or substantially the same as the method of operation of Applicant's apparatus as described in the claims.

2. Obviousness under 35 U.S.C. Sec. 103(a) over Benny et al in view of Wade or Pink:

The Examiner submits that;

- a.) the Claims 59, 72, 97, 102, 105, 128, 138, 145 and 164 are obvious over Benny et al in view of Wade (US 3,877,241);
- b.) and Claims 65 and 151 are obvious over Benny et al in view of Pink et al (US 3,798,923);

Art Unit: 3653

c.) these combinations obviate Applicant's apparatus as described in the claims since they provide the structure and motivation/suggestion required for such rejections based on these combinations;

3. Multiplicity/Prolix of the Claim Structure under 35 U.S.C. Sec. 112, Paragraph 2, in view of 37 C.F.R. Sec. 1.75 (b):

The Examiner submits that;

- a.) the claim structure is unduly multiplied and prolix;
- b.) there are numerous examples of multiplicity and prolix throughout the claim structure of the instant application;
- c.) The multiplicity rejection was a valid rejection under 35.U.S.C. Sec. 112, paragraph 2, 37 C.F.R. 1.75(b), MPEP 2173.05(n) and MPEP 2173.05 (m) and Applicant acceded to the requirements of this rejection.

(7) *Grouping of Claims*

The appellant's statement in the brief that certain claims do not stand or fall together is not agreed with because the Applicant acceded to the prior multiplicity rejection (paper no. 4, dated 4/20/00). The MPEP 2173.05(n) indicates that the examiner may set limits on the number of claims in instances of multiplicity/prolix. The multiplicity rejection identified a limit of claims, which included either;

- a.) a total of twenty claims including up to two independent claims, or
- b.) a total of ten claims including up to four independent claims.

Art Unit: 3653

These limits were arrived at upon a reasoned decision based upon the fact that the average number of claims patented in a typical patent is 1.75 independent claims and 16.875 total claims.

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

3,877,241	Wade	4-1975
5,660,506	Berge et al	8-1997
5,758,992	Sawallisch	6-1998
4,394,259	Benny et al	7-1983
5,816,443	Bustos	10-1998
3,798,923	Pink et al	3-1974
3,659,809	Cook	5-1972
5,829,646	Schroeder et al	11-1998
5,671,606	Schroeder et al	9-1997
4,008,865	White et al	2-1977
5,408,924	Arendt et al	4-1995
4,963,172	DeMarco	10-1990
4,961,446	Berg et al	10-1990
5,415,012	Maier-Laxhuber et al	5-1995
4,990,169	Broadbent	2-1991
6,266,945 B1	Schroeder	7-2001

Art Unit: 3653

6,279,329 B1	Berge et al	8-2001
5,993,117	Lancaster et al	11-1999
4,862,649	Davis et al	9-1989
4,442,786	Connors	4-1984
5,462,478	Fredsby et al	10-1995

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 11, 39 and 128, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Benny et al. Benny et al discloses the apparatus for conveying ice as follows.

As described in Claim 1;

1.) a hollow elongated ice conduit (38, 46, 88, 94, 96 and 98) connecting said source (22) of ice and said remote location (26) and providing ice communication therebetween;

2.) a receptor (26 or 106) at said remote location for receiving said ice;

(Note tables (element 26) could be reasonably construed as receptors or air lock (106) could be construed as a receptor in that it builds up "ice"

Art Unit: 3653

particles behind it until the barometric pressure is overcome by the weight of the built-up mass of ice particles.)

3.) a vacuum pump (32) in fluid communication through a vacuum line with said receptor for withdrawing air from said conduit and creating a vacuum comprising said negative air pressure *substantially throughout* said conduit, said negative air pressure causing said ice to traverse said conduit from said source into said receptor;

As described in Claim 11;

4.) said receptor at said remote location comprises an accumulator (note that tables (26) accumulate or said air lock accumulates as discussed previously) having therein an openable gate (106) for release therefrom at said remote location of accumulated pieces of ice conveyed thereto from said source (note that flexible end of (106) acts as a gate);

As described in Claim 39;

5.) said vacuum line (150) connecting in fluid communication into said hollow conduit at a first point of connection (54) upstream of a second point of connection (94) of said hollow conduit into said receptor (26), and spaced apart from said second point of connection by an interval not greater than a distance that said ice pieces can traverse under momentum imparted to them by their prior conveyance by said negative air pressure (note the distance between the connection point of (88) with (94) from the connection point of (54) with (88), such that diversion of at least a portion

of conveying force of said negative air pressure at said first point of connection does not prevent said ice pieces from continuing to traverse entirely through said hollow conduit into said receptor;

As described in Claim 126;

10.) a process of conveying ice comprising as follows;

- a.) providing a hollow elongated ice conduit connecting said source of ice and said remote location and providing ice communication therebetween, a receptor at said remote location for receiving said ice, and a vacuum pump in fluid communication through a vacuum line with said receptor for withdrawing air from said conduit and creating a vacuum comprising said negative air pressure in said conduit, said negative air pressure causing said ice to traverse said conduit from said source into said receptor;
 - b.) withdrawing air from said receptor and conduit and creating a vacuum comprising said negative air pressure in said receptor and conduit;
 - c.) causing said ice to traverse said conduit from said source into said receptor under the influence of said negative air pressure;
- (See Claim 1, above)

The term "ice conduit" of Claims 1 and 126 is considered to be positively recited. Regarding the nature of "ice particles", Applicants are referred to Berge et al (US 5,660,506), Applicants' prior issued patent, which indicates in the abstract in lines 1-6,

Art Unit: 3653

that frozen food such as chopped vegetables or diced meat, ice cubes or crushed ice are functional equivalents of each other with respect to what items the Applicants' system will conceivably designed to transport. Note, for example, that fish are well known to be frozen at sea upon harvest, as described by Fredsby et al (US 5,462,478) at col. 1, lines 19-40 and Conners (US 4,442,786) at col. 8, lines 66-68.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 59, 72, 97, 102, 105, 128, 138, 145 and 164, as understood, are rejected under 35 USC 103(a) as being unpatentable over Benny et al in view of Wade (US 3,877,241). Benny et al discloses the ice conveying apparatus as discussed above. Benny et al does not expressly disclose the subject matter described in Claims 59, 72, 97, 102, 105, 128, 138, 145 and 164.

As described in Claim 59;

6.) said receptor (12) being disposed adjacent to an inlet of a subsequent conduit (17) leading to a subsequent accumulator at another remote location (13), and said pieces of ice released from said receptor being deposited into said inlet for conveyance through said subsequent conduit to said subsequent accumulator at said another remote location (note that whether said ice pieces are deposited into said receptor (12) and then receptor (13) through conduit (17) directly, or said ice pieces are

Art Unit: 3653

deposited into said receptor (12), said receptor then depositing them into the next receptor (13), these two schemes are considered to be equivalent);

As described in Claims 72 and 145;

7.) sensor means (36, 37, and 38) for detecting the presence or absence of ice in said receptor;

As described in Claim 97;

1.) cleaner introduction means for introducing a liquid cleaner into said ice conduit and conveying said liquid cleaner through said ice conduit under said negative air pressure, whereby passage of said cleaner through said ice conduit cleans contaminants from the interior of said conduit, and upon discharge of said cleaner at an outlet of said conduit, removes from said conduit said contaminants entrained in said cleaner; (Note that it would be expedient for one of ordinary skill in the art to introduce a cleaning fluid into the device of Wade by means of the vacuum system employed by Wade, so as to clean out ice debris or ice sawdust built up over time—see also Benny et al, summary of invention, at col. 1, lines 44-62.)

As described in Claim 102;

8.) said receptor (12) at said remote location comprises an air lock device (27) which is connected to said ice conduit (17) or (26) on an upstream side and which has an inlet for pressurized air from a source thereof on a downstream side and another conduit (20) extending from said

Art Unit: 3653

downstream side for passage of said pressurized air, such that ice entering said air lock device from said ice conduit passes through said air lock device and *is* propelled through said another conduit at high velocity by said pressurized air;

As described in Claim 105;

9.) *that portion of said another conduit downstream of said air lock comprises flexible tubing with an outlet at an end distal from said air lock device and further comprising* directing means for manual, mechanical, pneumatic or electrical positioning of said outlet end of said flexible tubing (note that (27) is moved by solenoid (29)); (Note that flexible tubing is considered to be functionally equivalent to regular tubing in that the fluid flow with entrained material will still flow through such tubing. In addition, note that the apparatus of Benny et al uses flexible tubing in that system.)

As described in Claim 128;

11.) a process where said receptor comprises an accumulator, said process further comprising;

- a.) providing an openable gate in said accumulator at said remote location;
- b.) causing pieces of ice conveyed into said accumulator through said conduit by said vacuum to come to rest bearing upon said gate, said gate being biased against said opening;

c.) releasing of accumulated pieces of ice conveyed from said source from said accumulator at said remote location by counteracting or eliminating such biasing;

As described in Claim 138;

12.) a process as in Claim 126, further described as follows;

a.) connecting said vacuum line in fluid communication into said ice conduit at a first point of connection upstream of a second point of connection of said ice conduit into said ice receptor, and spaced apart from said second point of connection by an interval not greater than a distance that said ice pieces can traverse under momentum imparted to them by their prior conveyance through said conduit by said negative air pressure;

b.) conveying said ice pieces under that amount of force of said negative air pressure at said first point of connection sufficient to cause said ice pieces to continue to traverse entirely through said first conduit and into said receptor without diversion of any ice pieces into said vacuum line;

As described in Claim 164;

14.) a plurality of receptors (12, 13, and 14) or said ice sources or said ice sources and said conduit having an intermediate division point from which a plurality of branch conduits extend (17, 20), each branch conduit leading directly or through at least one intermediate further division point from

Art Unit: 3653

which a subsequent plurality of further branch conduits extend, to an ice communication connection with a respective one of said plurality of receptors or ice sources; (Note that there are intermediate points, such as where (20) branches off into (13) as an example of one of a number of branch points.)

Both Benny et al and Wade et al are analogous art because they concern and solve the problem of movement of ice particles (or functional equivalents thereof) entrained in air from a source to an accumulation point.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have added the multiple inlet/outlet and multiple sources and receptors/accumulators.

The suggestion/motivation for doing so would have been to transport ice particles from disparate remote ice-making sources to disparate remote storage locations. See col. 1, lines 5-7.

Therefore, it would have been obvious to combine Benny et al and Pink et al to obtain the invention as specified in Claims 59, 72, 97, 102, 105, 128, 138, 145 and 164.

Claims 65 and 151, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Benny et al in view of Pink et al. Benny et al describes the ice conveying apparatus as described above. Benny et al does not expressly disclose the unbridging means described in Claims 65, 97 and 151.

Pink et al discloses the ice unbridging means as follows.

As described in Claim 65;

Art Unit: 3653

1.) a collector (42) into which ice pieces delivered from said source of ice are received, said collector having a first opening (23) into said first conduit, and further comprising unbridging means (35, 36, and 37) associated with said collector for presenting said released ice pieces individually and unbridged to said first opening, whereby said ice pieces pass through said first opening into said first conduit;

As described in Claim 151;

2.) receiving ice pieces delivered from said source of ice in at least partially bridged condition, and unbridging said ice pieces prior to delivering said ice piece into said ice conduit;

Both Benny et al and Pink et al are analogous as both are examples of ice conveying apparatus'.

It would have been obvious at the time of the invention for one of ordinary skill in the art to have added the unbridging means of Pink et al to the receptor of Benny et al.

The motivation/suggestion would have been to encourage the ice to gravitate from the discharge port to another subsequent location and to maintain the ice particles at a certain size. See lines 12-18 of column 3.

Therefore, it would have been obvious to have combined Benny et al and Pink et al in order to obtain the invention as described in Claims 65 and 151.

Response to Arguments

4. Applicant's arguments with respect to Claims 1, 11, 39, 59, 65, 72, 97, 102, 105, 126, 128, 138, 145, 151 and 164, are considered to be unpersuasive.

Art Unit: 3653

1. Anticipation under 35.U.S.C. Sec. 102 (b) over Benny et al:

The Examiner submits that the disclosure of Benny

a.) discloses an all-vacuum-motivation conveyance system;

Note that in the system of Benny et al, a vacuum is present throughout the system. The fish (21) are sucked through a nozzle (36) and tube (38) (which is flexible tubing), to separator (54), and through tubes (88) and tubes (96) or (98) and exits (106) onto tables (26). The vacuum pump (32) creates a suction on the both exit and entrance ends of the system. See Benny et al, figure 5, showing fish entering the entrance nozzle, and figures 7 and 9, illustrating exit flap (106) being closed by suction. Therefore, a vacuum is present throughout the system, as required by the claims. Even if the system of Benny et al is construed as using gravity for a portion of the transport of fish, it is submitted that the system of Benny et al still reads on Applicants' claims as written since there is a vacuum throughout Benny's system, as described previously.

b.) is applicable to conveyance of ice for human consumption;

It is noted that regardless of whether ice or fish are conveyed by the vacuum, it is nonetheless, considered that the system of Benny et al would work in substantially the same way, using substantially the same structure with substantially the same results as Applicants' system. In addition, Applicants' prior patent (US 5,660,506) to Berge et al, states in the first six lines of the abstract that the "pneumatic conveying apparatus

and method are described to provide for a simple, economical, convenient (and preferably automatic) system for conveying small pieces of frozen food (e.g., chopped vegetables, diced meat, or preferably ice cubes or crushed ice) on an as-required basis to one or more locations remote from a food source." Again, it is noted that fish are well-known to be flash frozen at the point of capture on the boat. Therefore, one ordinarily skilled in the art would use Benny et al's system for removing frozen fish. In addition, Benny et al discloses transport of food, such as potatoes. See figure 12, for example, of Benny et al. At the very least, ice particles and unfrozen fish are considered to be functional equivalents to each other since they are both solid, separate objects which are capable of being transported by vacuum system. Note that regardless of whether the fish are frozen or not, the system of Benny et al would work in the same way as Applicants' system.

c.) represents what those skilled in the art would consider analogous art;

Benny et al is considered analogous art to that of Applicant, at the least, because it solves the same basic problems of transporting individual solid objects by fluid or vacuum transport. In addition, Benny et al is classed in class 406, directed towards the fluid conveying art, as is Applicants' apparatus. This is because they are both directed towards fluid conveyors and are solving the same or similar problems, even if one were to consider that both systems reside in different environments.

Art Unit: 3653

Therefore, Benny et al is considered to be analogous art to Applicants' apparatus.

d.) is of a system with a structure of apparatus the same or substantially the same as Applicant's as described in Applicant's claims;

As described previously, the system of Benny et al is the same or substantially the same as Applicants' system.

e.) is of a system whose method of operation is the same or substantially the same as the method of operation of Applicant's apparatus as described in the claims.

As described above, the method of operating the system of Benny et al is the same or substantially the same as Applicants' method of operation of their system.

2. Obviousness under 35 U.S.C. Sec. 103(a) over Benny et al in view of Wade or Pink:

The Examiner submits that;

a.) the Claims 59, 72, 97, 102, 105, 128, 138, 145 and 164 are obvious over Benny et al in view of Wade (US 3,877,241);

Even if one were to consider the system of Benny et al as deficient, the system of Wade may be construed to disclose and teach the portions of Applicants' system, as stated above. It is noted that in col. 4, lines 49-58, and col. 5, lines 10-22 of Wade discuss the sensors (36, 37 and 38) which are used to detect levels of ice in bins.

At the very least, it would be expedient for one ordinarily skilled in the art to use the item receptacles (such as elements 11-14) and their level sensors, as described by Wade, in the system of Benny et al in order to contain items, such as ice or frozen foods, such as fish, for distribution. At the very least the bins are functional equivalents of the tables (26) of Benny et al. In addition, it would also be expedient to have a sensor to detect the amount of fish placed on said table of Benny et al. The motivation/suggestion would have been to sense the level, and therefore the amount of items being dispensed by the fluid transport system of Benny et al.

Introducing a cleaner would also be expedient as the apparatus of Benny et al would necessarily periodically require cleaning. Note that the separator (54) of Benny et al is also used to separate unwanted debris from the stream of items transported. In addition, as the apparatus of Wade would also require periodic cleaning, it would be obvious to one of ordinary skill to introduce such a cleaning solution throughout the system of Benny et al so as to effectuate cleaning of the entire system, as is done in Wade.

Note also that Applicants' apparatus, in requiring a cleaner be used, at the very least, implies that the system requires cleaning because ice imparts debris and impurities to such a system. Such impurities might be contaminated ice particles, which have broken off from other larger ice

pieces, or other foreign particles, such as dirt or paper. Potatoes, fish and other food items also may be construed to impart similar debris and impurities to the system of Benny et al as well. These particles also might be deposited before or after the separator (54) of Benny et al. Even with the separator of Benny et al, use of such a cleaner as described by Wade would aid in cleaning the entire system, possible even the separator itself.

Even if fish are assumed to leave debris such as fish scales, etc. which are dirtier than the ice particles, it can be argued that this is a matter of design choice based upon the items desired to be transported. In other words, the amount of dirt or debris left in the system is a function of what goes into the system. It would be expedient for one ordinarily skilled in the art to add a particular cleaner to such a system, as needed, to periodically clean such a system of debris. Nonetheless, the system will still work in substantially the same way with substantially the same structure.

Wade discloses the air lock as described above. Also note that Benny et al discloses what can be construed as an air lock (106) in that the end nozzles are automatically sucked closed, therefore keeping air locked out from either side of nozzle. In addition, it would be expedient to add air locks, such as in Wade, in order to provide a means to direct items to one of a plurality of locations. Note again that Wade discloses multiple receptacles, therefore requiring multiple airlocks to direct the stream of items into a particular receptacle. Such would also be needed in a system

Art Unit: 3653

such as that of Benny et al. Regarding Claim 138, both the systems of Wade and Benny et al necessarily work in a manner which fits the limitations of this claim.

b.) and Claims 65 and 151 are obvious over Benny et al in view of Pink et al (US 3,798,923);

Regarding the apparatus of Pink et al in combination with Benny et al, it is noted that whether ice or other frozen particles, or even non-frozen solid pieces of food are used, that the motivation for including the Pink et al unbridging means is, as mentioned above, to allow the items to gravitate from a receptacle (such as the box on the boat in Benny et al) to a port or entrance nozzle, or to maintain the items of a certain size. Maintaining items of a particular size would appear to be necessary if the piping of the system is of a finite diameter, and the items are capable of randomized sizes.

c.) these combinations obviate Applicant's apparatus as described in the claims since they provide the structure and motivation/suggestion required for such rejections based on these combinations;

See arguments and rejections discussed above.

3. Multiplicity/Prolix of the Claim Structure under 35 U.S.C. Sec. 112, Paragraph 2, in view of 37 C.F.R. Sec. 1.75 (b):

The Examiner submits that;

a.) the claim structure is unduly multiplied and prolux;

Art Unit: 3653

The claim structure is unduly multiplied and prolix as indicated by the 164 Claims originally submitted in the instant application as well as further evidenced by the claims in copending applications 09/128,050 and 09/207,075, each with more than fifty (50) claims. It is not simply that there are too many claims, but that the claims also have very fine differences and have dependencies which create a convoluted structure to understand. Extrinsic evidence of the multiplicity and prolix can be found in the presence of two other prior copending grandparent cases, each with approximately 50 claims each. In response to the rejection based on 35 U.S.C. Sec. 112 based on multiplicity and prolix in both of those cases, the Applicant responded by abandoning those two applications expressly. Applicants have acceded to those rejections without complaint. However, in this case, with 164 claims, Applicants have, at first acceded to the initial multiplicity rejection in the instant application by reducing the claims. Applicants was given several non-final actions and two final rejections, so as to provide Applicants a full opportunity to respond to findings of new art. The corresponding amendments, however, did not place the independent claims in condition for allowance. Independent Claim 1, for example, appears to still be so broad that it can be argued to read on a slurpee sipped through a straw. (Slurpee mixtures can be considered to be ice particles, moved by a system with negative air pressure produced by the human lungs working as a vacuum pump, throughout the entirety of

a plastic straw, to transport said slurpee mixture from the cup, which is remotely located from the human mouth on the other end of the straw.) Applicants' desire to amend the claims now, after final, does not preclude the fact that the multiplicity rejection was acceded to. The claims not chosen by Applicants for examination were withdrawn from consideration. All efforts to defer to Applicants rights to have a full and fair examination of the claims was made by the Examiner. In response to the multiplicity/prolix rejection, Applicants suggested a scheme which did not appear to fit the requirements of the MPEP sections 2173.05(m) and 2173.05(m). The MPEP mentions that among the requirements of a multiplicity rejection, a number of claims must be specified by the Examiner, and that the response by Applicants must include a selection of claims not greater than the number specified by the Examiner. The remaining, non-examined claims were not required to be cancelled in order to allow for Applicants to retain their right to appeal the multiplicity rejection.

b.) there are numerous examples of multiplicity and prolix throughout the claim structure of the instant application;

Examples of multiplicity/prolix include Original Claim 120, which Claims second port pairs comprising at least four second port pairs— Original Claim 123 claims second port pairs comprising two, three or four second port pairs—note also that Claims 30, 120 and 123 describe ice

falling under the influence of gravity (rejection, paper no. 4, dated 4/20/00 inadvertently mentions Claim 29 instead of Claim 30). Claims 94-96, for example, depend from multiple claims. The original 163 claims and their claim structure contain long recitations and unimportant details which constitute an unreasonable confusion of the invention in view of the nature and scope of Applicants claims as well as in view of the state of the art. (Note the number of claims in each of the cited patents above as well as cited by Applicants in the IDS.)

c.) The multiplicity rejection was a valid rejection under 35.U.S.C. Sec. 112, paragraph 2, 37 C.F.R. 1.75(b), MPEP 2173.05(n) and MPEP 2173.05 (m) and Applicant acceded to the requirements of this rejection.

Despite Applicants' right to be their own lexicographer and to present a sum of claims that is sufficient to properly define the metes and bounds of the invention, Applicants are not afforded the right to obscure or obfuscate the invention as a result of claims that are so numerous and have convoluted claim structure and claims such that they vary in scope (note the numerous dependent claims, for example), preventing one ordinarily skilled in the art from recognizing the metes and bounds of the invention. In addition to the instant case, two other cases discussed above were co-pending with this case and were expressly abandoned in response to the multiplicity rejection of those cases. In addition, the public has a right to know what is and is not the invention so as to be able to

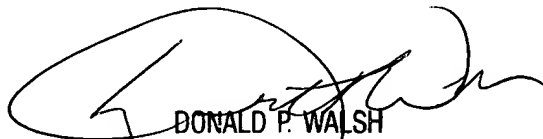
Art Unit: 3653

determine what knowledge is dedicated to the public use. In light of the above arguments and the nature of the art and scope of Applicants' claims, the rejection based upon multiplicity should stand, with the remaining unexamined claims withdrawn.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Jeffrey A. Shapiro
Patent Examiner,
Art Unit 3653


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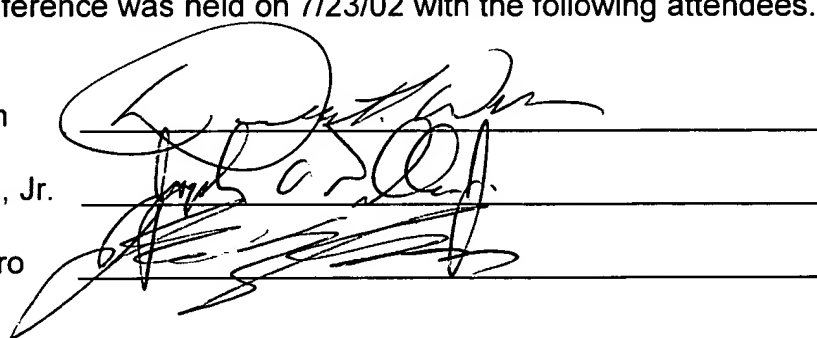
July 26, 2002

An Appeals Conference was held on 7/23/02 with the following attendees.

Donald P. Walsh

Joseph A. Dillon, Jr.

Jeffrey A. Shapiro



Conferees are as follows.

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